

USING ACOUSTIC ENERGY  
TO ACTIVATE IMPLANTED SPECIES

Abstract of the Disclosure

Acoustic energy may be utilized to generate phonons for activating implanted species. As a result, greater activation may be achieved with lower thermal budgets.

5 Higher temperatures utilized in conventional processes may result in damage to semiconductor wafers. In some embodiments, the acoustic energy may be coupled with rapid thermal annealing, laser annealing, or other annealing processes. The acoustic energy may be developed by  
10 vibrational sources, laser energy, or other sources.